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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/798,347 | 03/12/2004 | Giuseppe Rossi | M4065.0642/P642-A | 5599 |
| 24998 7590 05/12/2008 DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403 | | | | |
| EXAMINER | | | | |
| NGUYEN, VINCENT Q | | | | |
| ART UNIT | | PAPER NUMBER | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/798,347

Applicant(s)

ROSSI ET AL.

Examiner

Vincent Q. Nguyen

Art Unit

2831

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 68-112 is/are pending in the application.
- 4a) Of the above claim(s) 70-75, 95-102 and 104-112 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 68, 69, 76-94, 103 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 86, 87 are rejected under 35 U.S.C. 102(e) as being anticipated by Kameshima et al. (6,271,880).

Regarding claim 86, Kameshima et al. discloses a method of determining temperature of an imager chip comprising the steps acquiring at least one dark current signal at a plurality of locations of a pixel array (Fig. 5, col. 2 lines 11-45); and determining an associated temperature value for each of said locations (It is inherent that the arbitrary unit in figure 5 including arbitrary locations of the images) using a respective said at least one dark current signal (The Idark).

Regarding claim 87, Kameshima discloses adjusting (By control circuit 6) each of a plurality of temperature dependent parameters of said imager based on an associated said temperature value.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 68, 69, 76-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kameshima et al. (6,271,880) in view of Tsai (US 2004/0032627).

Regarding claims 68, 69, Kameshima et al. discloses a method of determining temperature of an imager chip comprising the steps of measuring dark current (Figure 5, col. 2 lines 11-45) and determining a chip temperature representation based on said measured dark current value (Abstract, col. 2 lines 1-32).

Kameshima et al. does not disclose the steps of storing a fabrication process dependent value for an imager chip.

Tsai discloses a method for an imager (CMOS image sensor) has a ROM disposed on the chip and further disclose steps of storing a fabrication process dependent value (Para. 8, 22) for assisting the imager in compensating manufacture process variations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the steps of storing a fabrication process dependent values as taught by Tsai into the method of Kameshima et al. because using the fabrication process dependent values would compensate the manufacture process variations.

Regarding claim 76-80, Kameshima et al. discloses a method of determining temperature of an imager device comprising the steps of acquiring at least one dark current signal from at least one pixel in a pixel array (Fig. 5, col. 2 lines 11-45); and determining a temperature value using said acquired dark current signal together with at least one other value representing a reference dark current signal of a pixel of said pixel array taken at a reference temperature.

Kameshima et al. does not disclose using the fabrication process value.

Tsai discloses an imager (CMOS image sensor) and discloses a step of storing fabrication process value (Para. 8, 22) for the purpose of enhancing the operation of the device by compensating for defective pixels, differing pixel signal levels and other tested pixels attributes (Para. 06).

It would have been obvious to modify Kameshima et al. to incorporate the using of fabrication process values as taught by Tsai into the method of Kameshima et al. because using the fabrication process dependent values would compensate the manufacture process variations.

Regarding claims 82-85, Kameshima et al. does not disclose the steps of storing a fabrication process values as discussed above and does not disclose the store parameter is a current, a resistance, a voltage, an impedance or a capacitance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the store parameter as a current, a resistance, a voltage, an impedance or a capacitance into the method of Kameshima et al. because

storing parameters as a current, a resistance, a voltage, an impedance or a capacitance is a matter of design choice depending upon cost constrained.

6. Claims 88-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kameshima et al. (6,271,880).

Regarding claims 88-92 Kameshima et al. does not disclose the steps of storing a fabrication process values as discussed above and does not disclose the store parameter is a current, a resistance, a voltage, an impedance or a capacitance.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the store parameter as a current, a resistance, a voltage, an impedance or a capacitance into the method of Kameshima et al. because storing parameters as a current, a resistance, a voltage, an impedance or a capacitance is a matter of design choice depending upon cost constrained.

7. Claims 93, 94, 103, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kameshima et al. (6,271,880) in view of in view of Tsai (US 2004/0032627) and further in view of Wand (US 6,267,501 B1).

Regarding claims 93, 94, 103, pertinence to the discussion of claims 68, 76, 86 above, Kameshima et al. and Tsai disclose every subject matter recited in the claims accept for the sampling.

Wand discloses method of calibration for measuring temperature by a detector including measuring the voltage of each pixels by varying the sampling integration time (column 4 lines 54-67) for improving signal to noise ratio of measurement signals required to accurately measure temperature.

At the time the invention was made it would have been obvious for one of ordinary skill in the art to modify Kameshima et al. to incorporate the steps of sampling as taught by Wand for sampling dark current signal (voltage) with first and second integration time since Wand disclosed that varying the sampling integration time is beneficial for accurately measuring temperature (Wand's col. 1 lines 45-67) and for the same reason as set forth in claim 68.

Response to Arguments

8. Applicant's arguments with respect to claims 68, 69, 76-94, 103 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q. Nguyen whose telephone number is (571) 272-2234. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. F. Gutiérrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2831

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vincent Q. Nguyen/
Primary Examiner, Art Unit 2831

May 9, 2008